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EDITORIAL

The Post-War Period

From time to time we hear that the war is expected to produce better conditions in the post war period and that we must establish our own new order which will benefit us all. Far too many people, when asked to think about and plan for this period inform us that we must first of all win the war and then think about planning for a new order afterward. While it is of course essential that we win the war or the new order will be established for us it does seem that we should also plan now for the peace and for the period that will follow the war. Some people seem afraid to think what will happen when the war is over and seem content to allow others to do the thinking for them, but it seems to us that if we had some conception of the kind of world we desired when peace comes it might help materially in the winning of the war which is, of course, the first essential. Some people are afraid that we will have another severe depression immediately hostilities cease, others think there will be plenty of work for everyone and that all of us will have a new conception of our duties to each other and that things will roll along in fine style without any worries whatever, but they do not seem willing to do anything to bring about such a state of affairs. It is interesting to read of a survey conducted in this connection by Fortune magazine and which reveals some very interesting thoughts. The public believes, says "Fortune", that we shall have a better life and widening opportunities five years from now, and yet, paradoxically enough, 67.3% of the people surveyed believe that our standard of living will be the same as before the war or lower. A rather significant fact is that the two groups most directly concerned with industrial production, that is executives and factory labor, are strongly disposed to believe that there will be more jobs after the war than before—29.1 per cent of factory labor believes this and 27.5 of the executives do likewise. In addition 24.0 per cent of executives and 23.0 per cent of labor believes there will be as many jobs as before the war, all of which is in direct contradiction of the often expressed belief that once the manufacture of munitions and war supplies ceases there will be another depression. Another thing this survey disclosed and that is that the public wants medical care for those who need it, old age pensions and jobs for everyone or compensation for those unable to find work but it very emphatically rejects any form of socialism or so it says. Only 24.5 of the poor and 3.3 per cent of the supposed prosperous class included in the survey believed that socialism would be good for the country as a whole and only 9 per cent of the prosperous class think that it would make no difference to them personally—a rather significant fact. However, the answers given by the executives are more significant for nearly two out of every five in this class think that some form of socialism would be good for the country and nearly one third believe that it would make no difference

to them. Quite apart from this survey by "Fortune" which is very enlightening, the war has taught us the idiocy of waste and if we can but take this lesson to heart it should have a real effect on the post war world. When we have all learned that real sacrifice on the part of everyone is necessary to win this war we shall be in a far better position to plan for a post war world. We have yet to learn this lesson, but it will come in time. The type of peace we win will have a great effect also on the post war world for we can have no real new order unless we first of all plan a real peace with no possibility of future wars. From that basis we can proceed with a plan for a world which will indeed incorporate the four freedoms and on that basis we should have the start of a world worth living in. First of all then we must win the war, then we must win the peace and go on to far better conditions than we have ever known. Is it too much to ask therefore that some of us, indeed all of us, give some thought to the type of post war world which will be best for all of us?

Across the Secretary's Desk

Since the last issue of "Cost and Management", I have had the opportunity of conferring with the directors of several chapters regarding the programs for the season just commencing, and despite the fact that good speakers are extremely hard to get due to the war effort, many good speakers have been lined up and generally it looks like a real good season.

Out of town members of some chapters can still attend chapter meetings by a pooling of cars, and we hope this will be done. As a matter of fact steps are being taken to accomplish this pooling, which will also save gasolene.

Student sections appear to be more enthusiastic than ever, and in this connection it is hoped to announce some very important news, either in this issue or the next.

Most members are working harder than ever before in connection with the war effort, but it is hoped that they will remember that much benefit can be obtained from attendance at chapter meetings. Also there are many men throughout the country who should be members of our Society but who, for many reasons have not yet become members. Present members can assist greatly in the growth of the Society by either urging such men to make application or by notifying the Secretary as to the names and addresses of these prospective members.

Another thing we would like to mention is that we are moving to more commodious quarters in the same building and the new address will be 601-602 MacKay Building, 66 King Street East, Hamilton, Ontario. This change has been made necessary through the continued growth of the Society, and those members who have occasion to drop in will find it a distinct change for the better. The change will be effective from October 1st.

Recently it was decided to publish in "Cost and Management" a roll of honor showing the names of those members engaged on active service with the armed forces. The response to the request for information on this

subject has been very slow and we would ask all members who know of such members to let us know immediately. Further members with the armed forces should write giving their name and present address.

This will help very materially in compiling such a Roll of Honor. Also once again may we urge any member who is proceeding west to notify this office. Speakers are urgently needed by our western chapters and you can do your Society a great service by volunteering for this work if you have any occasion to go west.

R. D.

Chapter Notes

Toronto.

The Toronto Chapter is looking forward to a great season despite the war and all its ramifications. A meeting has been arranged for September 22nd, when the speaker will be J. F. Gibson, C.A., and a Joint Meeting with the Hamilton Chapter for October 20th when a prominent speaker is expected. The student section will commence operations very shortly on even better lines than heretofore and generally the members can look forward to a banner season.

Hamilton.

The Hamilton season opens on October 14th, and some really good speakers are being lined up by the directors. On October 20th, the chapter will travel to Toronto for a Joint Meeting. The Student Section will again function with evening classes and expects to get under way early in October.

Kitchener.

A meeting of the directors of the Kitchener Chapter was held on September 16th, when it was decided to commence operations on October 14th. Several prominent speakers have been contacted and it is hoped to have a really good season. Out of town members are being urged to pool their cars in connection with meetings in order that these members can attend most, if not all of the scheduled meetings. The Student Section will again function.

London.

The London Chapter will commence its season on September 24th, but the members feel that with the extreme difficulty of obtaining prominent speakers, discussion meetings will be the order. Several such meetings were held last season with excellent results. The Student Section seems likely to function much better than last season and plans are under way for a most instructive season.

Windsor.

The Windsor Student Section commenced its activities early this year, on September 17th, and the regular Chapter meetings commence on October 1st. A good program has been lined up despite the difficulty in obtaining speakers, and the Chapter is looking forward not alone to another excellent season but to retaining the Fernie Trophy which it won for the first time lasts season.

Fort William-Port Arthur.

The Chapter commenced its activities on September 24th with the visit

of Frank E. Wood, Chief Cost Accountant, Dept. of Munitions and Supply, who gave a fine talk on "Costing for Government Purchases". Mr. Wood was given a fine welcome, and the members of the Chapter feel that this fine meeting is a most happy augury for a most successful season.

Vancouver.

Members and friends of the Vancouver Chapter were treated to an extremely able and instructive address on "Accounting for Government Purchases" by F. E. Wood, of the Dept. of Munitions and Supplies on September 10th. Over sixty were present at the meeting and a large number of non-members evinced great interest in the work of the Chapter.

Ottawa.

The Ottawa Chapter will commence its season on Monday, September 28th, and the speaker for this meeting will be G. E. Footit, C.A., of the Income Tax Branch of the Department of National Revenue. Mr. Footit, who recently addressed the Fort William-Port Arthur Chapter will speak on "Income and Excess Profits Taxes Applicable to Corporations."

Montreal.

The Cost and Management Institute of Quebec will hold its opening dinner at the Windsor Hotel on Friday, October 2nd. The guest speaker will be Ken W. Taylor, Secretary of the Wartime Prices and Trade Board who will speak on "Wartime Trends." To those who know him Mr. Taylor is a fine speaker with an engaging personality, and this should be a rare treat for our Montreal friends.

New Members

Hamilton Chapter.

Miss Jean McGeachy, Steel Co. of Canada Ltd.
Robert Roy, Steel Co. of Canada Ltd.
H. Franklin Baker, Hamilton.

Kitchener Chapter.

J. B. McKinnon, Hi-Speed Tools Ltd., Galt.
N. R. Barfoot, Galt Metal Industries Ltd., Galt.

London Chapter.

E. D. Morrison, Gorman, Eckert Co. Ltd., London.

Windsor Chopter.

W. Sullivan, Canadian Synthetic Rubber Ltd., Sarnia.

Ottawa Chapter.

E. W. Mildenhall, c/o J. R. Lacourciere, C.A., R.I.A., Ottawa.

Literature Received

Oil Refinery Accounting.

N.A.C.A. Bulletin, Sept. 1.

Deals with the costing of several co-products or by-products which are obtained from one raw material and discusses the most important question as to whether unit costs can be determined. Also whether or not it is wise to determine units costs of products where selling prices of finished products under such circumstances vary widely.

Application of Mechanical Equipment to the Cost Office.
Accountants Journal, July.

A short but interesting article dealing with the application of and the need for mechanical equipment in the Cost Department.

Accounting for Material and Related Procedures.
N.A.C.A., Aug. 15.

A most complete and interesting report of the Systems and Methods Group of the N.A.C.A. New York Chapter on the subject as listed above. The report deals with the subject in four phases: 1., Purchasing; 2., Receiving and Storing; 3., Distributing, Recording and Controlling; and 4., Accounting and Paying.

Effects of War on Financial Statements.
The New York C.P.A.

A most interesting article which should be of prime interest to all accountants.

A Financial Alphabet

A was an Auditor, arrantly blind.
B was a Broker, who just didn't mind;
C was a Company, launched in the City.
D the Directors, at large, more's the pity.
E was an Expert, ecstatic enough,
F was the Fee he was paid for his puff;
G was the Glint of the Company's Gold,
H was the Haste in which Holdings were sold.
I was the Interest bought on advice,
J was the Juggling to keep up the price;
K was the Knighthood the Chairman was after,
L was the Lawyer—forgive me my laughter.
M was the Money the Manager drew,
N was the Nominee nobody knew;
O was the Office, palatial and tall,
P was the Public, who paid for it all.
Q was the Question of Market Quotations,
R was the row and the Rude Accusations;
S was the Shareholder, shouting for blood,
T was the Tact that nipped that in the bud;
U was Urbanity, taking the Chair,
V was the Voter, who voted him there.
W's Wall Street, and—don't say I said it—
X the Extent of the Company's credit.
Y was the Yield of the current Year's trade,
And Z stood for Zero, the dividend paid.

—"R.D.C." in the "Manchester Guardian."

Budgetary Control

(Paper delivered by Mr. H. W. Martin to the Wellington Accountant Students' Society)

Reprinted from "THE ACCOUNTANTS' JOURNAL"

1. Development of Budgetary Control

Financial planning is not a recent development. Successful business organizations have always devoted much attention to the formulation of policies, and planning the means for putting the policies into effect. But it is only in the past 20 years or so that a precise and systematic accounting technique has been evolved by means of which the realization—or otherwise—of those plans could be checked. The term Budgetary Control, in its modern sense, also means that the actual results realized are checked frequently enough to enable the variation from the pre-determined plan to be analyzed, and investigated, to the end, that the management may take corrective action.

The net effect of the use of Budgetary Control properly conceived and applied is to increase sales and net profits and reduce operating expenses, even though clerical costs are somewhat increased. The reason for this is that control—**effective** control—of a business is increased. As a business device Budgetary Control has now passed through the test of a complete swing of the business cycle having had its early expansion in the boom years of 1923-1929, and having further demonstrated its worth during the slump which followed through to 1934. Budgetary Control is now definitely established as a part of modern business practice, particularly in America, and also to a large extent in England. Its use is gaining favor in Australia and this will undoubtedly follow in New Zealand too, where the trend, generally speaking, is towards larger business units. Whilst Budgetary Control can serve even a small concern—manufacturing or merchandising—and more than pay for the slight additional cost of working the system—it is a tool for the use of management of the **larger enterprises** where its real worth is best demonstrated.

For in a large concern, the many and complex ramifications of the business cannot **all** come under review of the management frequently enough to ensure that deviations from the planned program of correct management are not going unnoticed—or to ensure that any managerial reforms are instituted just as early as they should be.

I have already mentioned that Budgetary Control has been definitely established as a part of American business practice, and unless there was real worth in the idea—that is to say money worth, dollars and cents—you can hardly imagine its general acceptance in the home of the almighty dollar. I am stressing this because I know from experience that some well-meaning folk have yet to be convinced that budgeting is not just another unnecessary frill—not a bit of useless theoretical nonsense. Briefly, it is a realistic device which removes the unnecessary chance or guesswork from the operation of a business. Just as the captain of a ship must spend a little time in the chart room watching his pre-determined course, so must the managing director of a business check his course at intervals. If the ship or business is not getting off course, the captain or managing director need not spend

any time on the operating details, but if the concern is drifting, then action must be taken immediately.

2. Necessity for B. C. in Modern Business

By so concentrating on the deviations of a business Budgetary Control conserves the valuable time of the managing director, so that this busy man does not have to wade through masses of figures and reports which merely state that most of the business is operating well enough. Budgetary Control draws particular attention to only the variations from the planned operating program laid down at the commencement of the year. In a word, budgeting is based upon the principle of exceptions. The managing director wants advice — and very quickly, that, for instance, selling expenses are climbing out of proportion to the current sales volume, or that the budgeted factory overheads which are being charged into the stocks of finished product manufactured are out of line with the actual overhead costs and that price-increases in the product are justified, if the market will stand them. The object of Budgetary Control is to spotlight signs of danger and have corrective action taken by the management before it is too late, and a good system of Budgetary Control therefore requires the accounting system to be able to supply records of actual operating results at reasonably frequent intervals, depending of course on the type of business.

3. Budget Standards—The Objective of Performance

This idea of checking deviations, therefore, implies the establishment of standards against which all activities of the business are judged. If there are no standards by which to measure performance, the story of actual performance must be a meaningless and useless one. The question of the establishment of standards is a most vital one, as there is little we do or think about which does not require some standard of comparison, and its relation to Budgetary Control will be dealt with later.

Now we deal with the broad requirements in installing a system of Budgetary Control. Firstly, a definite and comprehensive accounting system should be already in use, because the analysis of prior years' figures relating to sales, expenses, and so forth will provide a good foundation upon which to estimate the future. Whilst ordinary accounting is historical in its application, Budgetary Control has a forward outlook. The past is used only to forecast the future more accurately.

However, assuming that a good accounting system is in operation, the next thing to do is to establish a definite objective of performance for the business. For instance, we will assume that after investigation of all angles of the sales situation it is forecasted that sales for the ensuing year should total say £100,000 and that the percentage of gross profit will remain normal, and that the return upon the capital employed, £50,000, should be say 10 per cent—that is, net profit should equal £5,000.

With these requirements in mind, the next job is to draft a procedure for getting the plan into operation. In this respect, too, the approach is different from the normal accounting approach. Instead of working from sales revenue down through expenses to net profit, the problem is rather this:—How best to allocate the margin between estimated sales plus other revenue, and the net profit figure called for by the directors or others concerned. We have so much revenue, say £100,000, net profit for dividends

requires £5,000. Therefore, the business may spend the other £95,000 if necessary. Where will it go?

4. Preparation of the Budget

This brings us to the actual work of preparing the Budget. As an accountant you would have the responsibility of producing the final budget figures, but the getting of the necessary facts and figures will require you to seek the active co-operation of all departmental heads who in due course will be held responsible for reaching their sales quotas or for keeping expenses down to the levels aimed at. For instance, the sales manager would provide a schedule forecasting the number of sales units of each variety of saleable product. In addition he would submit an estimate of each item of expense in his department, that is, he would make up a sub-budget of selling expense. Similarly, you would require sufficiently detailed estimates from the factory manager and all other executives who will be charged with responsibility for certain functions of the business. With detailed information of this nature the various sub-budgets would be prepared. The first is the Sales Budget as it is usually the keystone upon which almost all other activities of the business depend, and with which they must be co-ordinated. You will appreciate that I am speaking only in a general way. You must keep in mind that Budgetary Control is an art as much as a science. Judgment and plain ordinary common sense are as necessary as accounting knowledge.

5. Sales Budget and Selling Expense Budget

Regarding the Sales Budget, for the sake of illustration let us take a very simple example and assume that 20,000 electric heaters at £/10/- each plus 30,000 electric toasters at £/10/- each, will be sold. The sales units of these two products and their appropriate values will be tabulated by months, it also being assumed that most of the heaters will be sent out between March and September with peak deliveries in June.

Especially where there is a wide range of products, the sales program is very carefully planned. The Sales Budget must be prepared by an expert who is familiar with the market, and in point of fact the budget is worth just as much as the accuracy of the revenue estimate. A poor sales estimate will disturb the whole budget program.

Estimated expenses for the Sales Department will also be listed and tabulated by months, as monthly checks on actual expense compared with the budget are necessary to achieve the effective control looked for in a budget scheme. Here again, there will be fluctuations from month to month, for example, packing and delivery costs which will doubtless vary in direct proportion to sales, will also peak in June when sales are estimated to be highest. Accordingly, the estimated sales mentioned in the example we are looking at will determine to a great extent the level of factory operations.

To arrive at the estimated production volume, we would take into account the quantity of heaters and toasters in stock at the beginning of the budget year. Production is then scheduled for each month of the year in such a way that deliveries into stock will satisfy sales orders, and maintain a reasonable bank of stock on hand at all times to ensure promptness in delivery.

6. Cost of Production Budget

The factory manager now knows what production output he must

achieve in each month of the year and he is thus able to prepare his Cost of Production Budget.

The three components of Cost of Production—Material, Direct Labor, and Overhead Expense, are now dealt with. Material and Direct Labor Costs are fairly simple items to estimate in the example given—the manufacture of a standardized product. In such concerns, a Standard Cost system is usually adopted. In that case the preparation of a budget is very much simpler than in the case of say a printing works where each job is costed separately on its own merits. However, Budgetary Control can be suited to any business, although Standard Costs cannot.

The total material cost will therefore equal the material cost per heater or toaster multiplied by the units to be produced; and the same type of calculation will apply for Labor. It is of course assumed that manufacture proceeds on efficient lines and that all avoidable waste is eliminated. Constant comparison by the accountant of the figures submitted to him for inclusion in his budget with last year's results is a valuable guide in deciding whether the estimates are too optimistic or the reverse.

7. Factory Overhead Expense Budget

Overhead Expense is a longer story and it includes the following items:

Indirect Labor.
Indirect Material.
Indirect Expense.

You will notice that these items are all labelled as "indirect," that is to say, they are more conveniently applied to the cost of production in a general way than by attempting to allocate them to particular processes or jobs. For example, files or drills used in the manufacture of both heaters and toasters are indirect materials—likewise fuel, lubricating oil and sundry supplies. Indirect labor covers all factory labor, other than that engaged on actual production, when it is called Direct Labor. It also includes wages paid to both Direct and Indirect workers for statutory holidays, sick leave, etc.

Indirect Expense covers maintenance of machinery and buildings, heat, light, rent, insurances, stock shortages, losses and errors in productive materials, and depreciation of plant and machinery. The factory manager then proceeds to make up his estimate of these factory overhead expenses. A useful method of checking these total costs is to segregate them into two groups, namely:—

1. Fixed Charges—that is those that are relatively fixed regardless of volume.
2. Variable Expenses—that is those that vary approximately proportionately to volume.

The schedule of Fixed Indirect Labor, includes the wages cost of such employees as watchman, boiler attendants, engine drivers, the factory manager and a nucleus staff to operate the factory in the lower ranges of production. All other labor expense which will be incurred through going into the higher volume of production budgeted for, is classified as Variable Expense—that is, it varies more or less proportionately with production. We already know last year's figures for Variable Factory Overhead Expense per unit of product and even though production and hence grand total variable

expense for the new year is much higher, the per unit cost should not vary greatly.

Indirect Materials and Expenses are dealt with similarly. For instance, part of the cost of maintaining the plant and machinery would be fixed expense, and part variable. Insurance on the plant is all fixed expense and depreciation also would be all fixed expense, unless two or three shifts were working, in which case part of this expense would become variable in its nature.

The fixed expense group is independent of operating conditions and can be checked against the previous year's figures, after allowing for increased rates of wages, higher insurance, and depreciation charges on new equipment bought. These cross-checks on the budget figures are extremely useful and the accountant must devise many different means of proving the various budget estimates used by him.

After the Factory Overhead Expense Budget has been approved it serves as an expense standard for the period and as in the case of all other sub-budgets, periodic reports should be compiled showing actual performance in comparison with estimated. This overhead expense estimate also serves as a means of ascertaining the unit cost of overhead per toaster or electric heater, and thus allows us to complete the Unit Cost of Production of these articles.

We have now got to the stage where we know the cost of Productive Material and Direct Labor—in total, and also as per unit costs. We also have the **total only** of Indirect Manufacturing Expense—Factory Overhead, or Burden, as it is often called. The amount of overhead to be charged to each article produced will now be considered. If the factory is producing at its full capacity, then the budgeted number of articles to be made (reduced to some common denominator if they vary in size or otherwise) is divided into the total overhead, and the unit cost of Factory Overhead ascertained accordingly. This figure, plus the unit cost of Material, and of Direct Labor, gives the total unit cost of manufacture.

Some rather interesting problems crop up when factory production capacity is not fully utilized. It is in these cases that the segregation of Fixed Charges from Variable Expenses proves a useful device, because Variable Expenses actually incurred in running the factory should all be charged off into the product turned out by the factory. On the other hand the Fixed Expenses which persist whether the factory works flat out or whether it is in the doldrums, require special consideration. The toasters, etc., would still absorb only a fair charge for fixed overhead. They cannot carry the fixed overhead of articles that should have been produced but were not—due to some misfortune—and in a situation like this, these fixed overhead charges remaining unabsorbed or uncharged into any product, are merely written off as a loss item in the Budget Profit and Loss Account, and there described, as Unabsorbed Factory Overhead.

For the purpose of this talk, however, I propose to leave these interesting points as they probably belong more to the subject of Cost Accounting than to Budgetary Control.

Now, how far have we got in the Budget we are preparing? We have (1) a Sales Budget, (2) a Selling Expense Budget, (3) a Cost of Production Budget, (4) a Factory Overhead Budget.

Depending on the type of business, you could have various other subsidiary budgets, but for the purpose of this talk we will avoid going into too much detail, and will assume that a Management and General Expense Sub-Budget completes the foundation work.

8. Other Subsidiary Budgets

Here again the accountant will make up a schedule of all the relevant account classifications in the Management and Administration Expense Group. Last year's figures for each expense item are a useful guide in estimating requirements for the ensuing year. Some expenses can be quickly worked out, for instance, salaries for the staff need only to be listed and allowance made for salary increases or other factors and likely changes. With the foregoing framework of five or more subsidiary budgets ready, it is an easy matter to prepare the Budget Income, Profit and Loss Account.

9. Income, Profit and Loss Budget

Total Sales Value taken from the Sales Estimate is a straightforward entry. Cost of Sales will consist of the value of Finished Stock on hand plus Cost of Goods Manufactured and less the value of Finished Stock calculated to be on hand at the close of the year. In working up the Cost of Production Budget the usages of material will have been arrived at already, and if the accounting system is comprehensive and definite — this being a most essential prerequisite to the operation of Budgetary Control— you would find the problem of estimating future stock values not particularly difficult. A comprehensive accounting system would, for instance, include perpetual inventory control. The difference between Sales and Cost of Sales gives the Gross Profit Return, from which we deduct Selling Expense, and Management and General Expense. The resulting balance represents Net Profit on Sales Operations. So far, only the normal operating aspects of the business have been dealt with. Other Income—meaning "non-operating" income, is next added, instances being Interest on Investments, Bank Deposits, or Capital Profits. Next we enter "non-operating" expense, such as Capital Losses. There might be an anticipated loss on plant and machinery which it has been decided to dispose of during the coming year. Finally, the Provision for Income Tax completes the picture leaving a balance, we hope, as Net Profit.

If the estimated summary of financial operations shows a satisfactory net profit—a fair return on investment, the goal of every enterprise—it may be assumed that the more detailed budgets from which it was compiled are likewise satisfactory. It goes without saying, however, that certain elements in the underlying structure are sure to be susceptible of improvement and the final test of really good budget administration is the ability to single out and strengthen the weaker links in the chain. Although revision changes should only be made on proper authority the budget should be elastic enough not to hamper operations, and this may be accomplished by providing for an emergency fund to take care of contingencies. Budgetary Control is merely the servant, not the master, of the management. It takes some considerable time to get a budget plan running smoothly and the plan may fail because of improper organization for control, or because of the lack of an accounting system to furnish management with detailed reports promptly, and whenever needed.

Control of the business operations during the ensuing year is the one

and only reason for the Budget and it is therefore the function of the accountant to report the needed facts, and interpret them when necessary so that the management may harmonize and co-ordinate all departments of the concern. Generally speaking, monthly statements setting out a comparison of actual versus budgeted sales, gross profits, factory overhead expenses, production output, office overhead and selling expenses, will be required, and it is very often advisable to comment briefly to the management on the causes and effects of any deviations from the pre-determined standards of performance.

10. Flexible Budgets

You might ask what happens when sales exceed budget by say half as much again. The year's business might exceed all expectations. How, then, is control exercised, because it is only reasonable to expect expenses will increase.

You will recall my mention of the segregation of expense into fixed and variable groups. For example, no matter what volume sales might reach, the sales manager's salary would probably remain fixed. It does not vary with sales value or quantities. But the expense of packing and shipping the goods out of the warehouse will vary in practically direct proportion to the quantity of goods sold. To take an example:—fixed selling expense has been budgeted at £4,000 and variable selling expense on the basis of 50,000 articles, and total selling expense say, £3,900 fixed plus £7,900 variable—in all £11,800. This is £2,800 more than originally budgeted, but as I will explain, it does not necessarily mean that the budget is shot to pieces and that avoidable extravagance has been committed by the sales manager.

The fact is, that actual fixed selling expense at £3,900 was less than the estimate by £100—a saving of 2½ per cent. So far, so good; but the comparison statement shows that actual variable selling expense at £7,900 was £2,900 more than anticipated, but even that in the changed circumstances does not of itself prove anything. What does matter is whether the budget standard of 2s. packing and delivery cost per article has or has not been exceeded. On the higher actual turnover of 75,000 articles the total variable cost should have been £7,500 only. It was, however, £7,900, that is, instead of 2s. per article it actually averaged 2s. 1½d. per article sold. With the position analyzed in this way, the figures actually tell a story. I hope I have made myself clear on this because it is by segregating the variable expenses and then establishing standards that we can get a flexible budget of expenses which should vary up or down with volume.

On these lines, Budgetary Control will prove an indispensible aid to the management of any business once it is properly installed. In the time allowed I have been able to touch only very briefly on the subject. However, I would like to feel I have stimulated interest in Budgetary Control because I feel that the younger accountants have a very definite duty to the commercial community to fit themselves for the task of serving business in its growing complexity.

Physical Tests of Inventory

From a letter to the editor of "The Accountant" (London).

"To that not inconsiderable body of British accountants who have had experience of carrying out audits and investigations on the Continent for British clients, the 'home auditor's' attitude towards the audit of stocks has always been something of a mystery. The frequently found blind reliance on a somewhat ancient legal decision ('it is not the duty of an auditor to take stock, etc.'), the convenient 'get-out' presented by the heading 'Stocks, at management valuation,' make us shake our heads. Admittedly, many auditors nowadays do a bit of work on stocks, checking calculations, costs, etc. But few, very few, go to the root of the matter and try to verify that the stocks which exist on paper are really there. And now, at a time when more enlightened members of the profession are beginning to see that it is absurd to spend hours verifying balances of a few hundred pounds, and accept, almost unverified, what may be the largest item in the balance sheet, comes this Heaven-sent opinion of 'The Accountant,' that they should carry on as before, because 'we should be reluctant to accept the responsibility.'

"What!'—I can hear it already—'how can we possibly take stock? Apart from the time involved, how can we certify the quality of dried chemicals?' etc. The obvious answer is that no one has suggested they should. The attitude of the auditor in dealing with stocks should surely be exactly the same as he adopts towards any other asset in the balance sheet. His job is to do his best to verify that the balance sheet shows the true and correct position—and the balance sheet includes the stocks. There may be—and frequently are—other items which the auditor cannot entirely verify. He does his best and no one expects the impossible from him. It is true that the auditor is 'rarely a technical man,' but he is also rarely a fool. The firm he is auditing may make motor cars, kitchen tables or artificial teeth. He will not only be able to recognize these objects, but he will usually have little difficulty in recognizing parts and materials used in their manufacture. With the exercise of a little intelligence, he will be able to make a very effective test-check of the existence of most of the articles and materials in the stock-sheets of the average concern. . If, as will usually be the case, he has to make his 'physical contact with the inventory' at a date later than the date of the balance sheet, he will have little difficulty in reconciling the quantities checked with those at the date of balance-sheet by reference to the stores records (bin-cards, etc.).

In those cases where the goods to be checked are of a nature such as 'dried chemicals,' the checking of which by a non-technical man presents real difficulty, he can overcome that difficulty and make his check effective by obtaining the assistance of the storekeeper, on whose information he can almost always rely. The point to bear in mind is that where really important frauds and manipulations, involving collusion of directors and management, take place, the collusion will rarely, if ever, extend to staff occupying less exalted positions (this would be far too dangerous for the 'big men'); further, for those manipulations to be worth while, they must be on such a scale that they can hardly fail to be detected if some real effort is made to make a test-check of the stock sheets."

A Plan of Daily Reports

From an address entitled "Business Costs in War Emergencies," by C. Oliver Wellington, delivered before the Boston Conference on Distribution.

"To keep a margin between costs and selling prices that will give a reasonable return on the capital invested, management must eliminate all avoidable losses and wastes. Total profit or loss is made up of a multitude of individual transactions and operations. Management cannot see each of them, but must exercise control through records. One of the great practical values of a plan based on budgets and standards is that reports are made on the principle of exceptions. The great majority of transactions or operations will conform to the standards that have been set and therefore will not be reported. However, when the actual results differ widely from the standards, those matters which require executive attention are clearly shown in the reports, both in total for a department and by items within that department.

"In many cases management has used budgetary control and standard costs primarily for financial or profit and loss accounting. . . . Such control has been fairly effective in normal times with the comparisons between budgets or standards and the actual results made monthly or perhaps weekly. It is not sufficient under present abnormal conditions. By the time the weekly or monthly reports have reached the executives, a waste which might and should have been discovered and stopped has been taking a toll of profits for anywhere from a few days to several weeks

"Under some plans a considerable re-analysis of the reports may be needed to find the source of the trouble . . .

"The remedy is to have daily reports of any costs or expenses which exceed normal. In every business records of material, labor, and expenses and of production and sales must be made currently. Therefore, a plan of daily reports can be developed by proper control and summarizing of these current records, so that each day's results can be seen. It should be possible to have, not later than noon each day, a summary for the preceding day. In most companies where proper records are now being kept such a plan for daily control, if properly designed and operated, should entail little extra clerical expense."

Factory Costing

Reprinted from THE FEDERAL ACCOUNTANT

A paper read by Mr. A. Greenhill, F.F.I.A., a Member of the National Association of Cost Accountants of New York and Secretary of Charles Hope Limited, Motor Body Builders and Engineers, Brisbane, before the members of the Accountants and Secretaries' Educational Society (Incorporated) at Brisbane

PART I.—OVERHEAD

I regarded it as quite an honor and a privilege to be invited to address you this evening, and the subject of my address has been referred to on the notice convening this meeting as Factory Costing.

However, I feel that it must be understood by everybody that it would not be humanly possible within the short space of time allotted to a meeting of this description, to by any means cover fully the subject of Factory Costing.

Actually, it will hardly be possible to do more than just scratch the surface of certain particular sections of cost accounting, which I have carefully selected as being, in my opinion, parts which are of very particular interest to manufacturers in our own State of Queensland, though manufacturing is not carried out on anything like the extensive scale that it is in some of the large factories in our southern States.

Generally speaking, normal manufacturing in Queensland is, to a large extent, composed of the manufacture or production in one factory of any amount of products of varying types, though all possibly falling within one class. By this, I mean that in an engineering factory in Queensland, we naturally find all the work to be in the engineering classification, but the types of work vary enormously, so that in one factory connected, for instance, with the manufacture of motor accessories, we can find engineering operations which embrace, say, the repairing of a chassis, or the extension and lengthening of one or perhaps the manufacture of bumper bar brackets or the manufacture of innumerable small parts required by a motor importer or distributor, to make up short or incorect shipments from his home factory.

It is Factory Costing, so far as it relates to this type of business, which I propose to talk about to-night. Thus I do not propose to cite any illustration whereby we, as a regular thing, produce thousands of units exactly the same in type and classification, as would be the case, for instance, in the mining of tons of coal or the production of bathing suits or items which can easily be classified within this class.

The point I want to bring out is that where, perhaps in Adelaide, we have an enormous factory producing hundreds and hundreds of motor bodies of an exactly similar type, such as would be produced by the General Motors Factory, or Fords or Chrysler, we have in Queensland an entirely different type of manufacturing which must be prepared to accept orders for one's and two's or say, 25's or 50's of perhaps 30 or 40 different styles of motor bodies.

I am quoting motor bodies because that is the industry with which I am familiar and surrounding which the major portion of this address has been constructed.

You can readily visualize that it is in practice easier to lay down the standard and then set out to perform according to that standard when we are going to manufacture a thousand or ten thousand identical products, than it would be, if the quantity required were 6 or 12 or if, at the same time that these 6 or 12 were being produced, production was simultaneously being carried on of perhaps 20 other orders for 6's or 12's. In short, the motor building industry, as we know it in Queensland, consists of manufacturing small quantities of many different kinds of bodies, whereas in the large southern factories, their operations consist of the manufacture of large quantities of a very restricted number of types.

Starting the System

During this address, the course I propose to follow is this. We will imagine that a commercial accountant is newly appointed to a manufacturing company, and his object is to set out to establish a system of arriving at the

costs of the various products being manufactured and to generally endeavor to control the amount of overhead expenditure and the amount of wages expenditure and the amount of overhead expenditure used in the manufacturing process, in such a way that wastes will, as far as possible, be eliminated and that each of these items will bear a reasonable relation to the amount of products completed.

In such an instance, I imagine that the commercial accountant would start from zero, and his one piece of working informaion would be his profit and loss account and balance sheet of the company, compiled to the close of the financial year. I am, therefore, asking you to imagine that the commercial accountant commences his duties on the 1st day of July, after a miracle has been performed and the accounts to the 30th June are completed and finalized and in his possession. I would, therefore, refer you to Exhibit (1)* which is merely a simple form of trading and profit and loss account and the balance sheet of a business having two distinct sections consisting of three (3) departments, and also having two (2) branches in other States.

*Exhibit (1) omitted owing to lack of space—(Ed., C. & M.)

The trading account shows the gross profits of the various departments of the first section, the gross profit of the second section at the head centre and the gross profits of the branches separately. From this point, the whole of the gross profits of the departments are combined as a section and the net profit of the head centre and the net profit of the branches are shown separately. It will thus be seen that apart from their gross profits, the operations of the four separate departments have, in the final analysis, lost their individuality, and are merged as a section. This is quite a common and ordinary set-up and doubtless is quite familiar to most of you.

From the viewpoint, however, of the accountant setting out to establish a system of costing, it only provides the first stepping stone from which he is to operate. One of the first things to be done, even if the result is only to provide a guide or gauge upon which to base his figuring, is to get those four departments which constitute the first section, separated out, so that the charges of each department can be ascertained separately and also so that the net profit earned by each department is disclosed.

This process of dividing up the charges is one of the first steps towards ascertaining the cost of operations of each separate department. There is no fixed single rule which governs the division of these charges as a whole, but there are certain very definite groups into which these charges fall and for which a very satisfactory formula of division can be applied.

I propose to go through these various items in a moment and to outline the sections into which I would personally classify them and the reasons why they are so classified. In the process, however, I propose to combine another step and that is to rearrange the whole statement, so that instead of it being as it appears now, an orthodox trading and profit and loss account, I shall produce what I choose to refer to as a statement of cost of sales. In this process, the trading and profit and loss accounts showing gross and net profits as previously outlined, will lose their identity and we shall produce one final profit figure for each department, namely, the net profit secured by the department.

Elements of Cost

Before going on to that statement, however, I would like to make it clear that I am commencing the figure portion of this address at a point which presumes that we are all in accord that costs for all normal purposes consists of three basic elements, namely, materials, labor and overhead. In my statement, however, I propose to deal with them in the reverse order, and I propose to produce and classify, firstly, that which I call overhead; secondly, that which I call productive wages; and thirdly, materials. Here, however, I must digress for a moment to mention an important factor which demands an explanation that is, the subject of finished work in stock. I want to refer you back to the earlier part of this address wherein I mentioned the type of business with which I propose to deal and by virtue of its particular type, the question of finished work in stock practically does not appear; in any case, it is a factor of negligible value under the conditions we are dealing with. If, for example, we were dealing with a factory manufacturing, say, bathing costumes, the quantities of finished product in the store awaiting disposal by the sales staff would be a very considerable factor. However, in the particular class of business with which I am dealing, production is made definitely and only against orders and delivery takes place as soon as the product is completed, so that there is never, at any time, a large or for that matter, any noticeable quantity of made-up stock on hand.

The stock will naturally consist of a good portion of partly finished goods and goods in various stages of production, but as far as having stores full of finished products awaiting delivery, this position will not arise.

Returning to the rearrangement of the information shown in the trading and profit and loss account submitted as an example, I want to mention that this rearrangement is the first step only and that having rearranged the figures of last year, the next step is to try to forecast our anicipations for the next year. This, however, is a very wide subject and is referred to in cost accounting as budgeting.

Briefly, budgeting sets out at the beginning of a period not only the goal which we hope to reach at the end of the period, but various factors which are going to guide us in attaining that goal and the machinery for checking progress from time to time to see how close our actual performances compare with the results which we have set out to achieve. For the meantime, however, I do not wish to go into this particular subject, and we will stick to the figures of the last year and clean up that process before we enlarge. I previously stated that it is usually accepted that three basic elements of cost exist, and I have mentioned them in the common phraseology, materials, labor and overhead. Our statement is designed to sort out these three elements of cost and to show them separately. It, therefore, contains three main sections—Section A being allotted to overhead, Section B to labor and Section C to materials. The one which offers the greatest complication appears to be overhead, and I will, therefore, proceed to deal with this subject first. In accountancy, as in most other things, terminology is not uniform. Thus, we find many different definitions of overhead. For purposes of this address, I propose to refrain absolutely from attempting definitions, feeling that if I take each item in turn, the basic factors which determine whether an item is, or is not, overhead, will become apparent themselves without any effort on my part to define the term.

Overhead

I have divided overhead into three main sub-sections of a group. I refer to

Sub-Section (a)—As General Overhead, which consists of what I would class as general items, and embraces Groups 1, 2 and 3, which in turn, are divided into classes.

Sub-section (b)—The Wages and Salaries Group of Overhead charges, referred to as Group 4, and also sub-divided into classes.

Sub-section (c)—Depreciation, referred to as Group 5.

Sub-section (a) I have already stated is further divided into three groups. These consists of:—

Group (1)—Expenses which we can control.

(2)—Expenses which we cannot control.

(3)—Expenses governed by the company's policy.

The distinction between these various groups should be fairly apparent, but it is very essential that if control of expenses is to be properly instituted, we must be able to definitely define those expenses which permit of control as apart from those which are governed by the policy of the company.

The idea of controlling expenditure is to ensure that in the first place, expenditure, at all times, bears a reasonable proportion to the amount of business being done and remains fairly steady. This does not mean that to a minute decimal, expenses must evenly rise or fall according to the rise or fall in turnover, as we all know from experience, that a rise in turnover frequently can be secured without a rise in expenses, but at the same time, we want to know that if turnover is rising, expense is only rising proportionately. On the other hand, it is not always possible to reduce expenses at the same rate that turnover may be reducing. The whole idea, however, is to get some control so that the expenses which it is possible to control in relation to the amount of business being done are, within reasonable limits, closely watched and controlled.

In each particular group of expenses, I find in practice six very definite classes, and there are also two other classes in Group (1), which are probably peculiar to our own business. Thus we find in Class (a) expenses which are divisible between departments of a business on the basis of the turnover of the whole business or the whole of the business of one sction; Class (b) contains those expenses which relate to transport services and are divisible on the basis of horse power employed or in some businesses, on the basis of miles travelled or loads carried; Class (c) contains expenses which are divisible in proportion to the value of assets employed; Class (d) contains expenses divisible on the basis of wages paid; Class (e) is the class into which fall such expenses as are divisible according to the floor area occupied; and Class (f) is reserved for what we call direct debits.

The additional Class (g) would only occur in a business with a set up such as ours where the business of one centre is divided into two separate sections Class (h) is a subdivision of the direct debit Class (f).

Every expense appearing in the trading and profit and loss account submitted as exhibit, can be classified into one or other of these classes or groups. I do not propose to go through them all in detail to say why I make the particular classifications I do make. Each business has its own

particular features which must be the governing factor in deciding into which group or classification an expense is to be placed.

Shortly summarized, then, we find, firstly, a division into 3 sections of overhead expenses, the further sub-division of one of these sections into 3 groups, according to our ability or lack of ability to control them, and then the further sub-division of each group into classes according to the basis of division to be adopted.

The first section of expenses, called Sub-Section A, consists of general overhead items, and in the first sub-division or group, we find the expenses which we can control, such as advertising, travelling expenses, car allowance, postages and telegrams and office stationery, benzine for cars and trucks, analyst's fees, loose tools used and any other items which should relatively be controllable in a fairly even ratio with the turnover secured.

I would refer you now to Exhibit 2.

EXHIBIT No. 2.

SECTION A. — General Overhead.

GROUP 1. — Expenses which we can Control.

CLASS A. — Divisible between Departments on Basis of Turnover of Whole Business.

Advertising .....
Bad Debts .....
Cartage, Freight and Charges .....
Office Stationery .....
Postages and Telegrams .....
Power and Light .....
Telephone Charges, Rent, and Calls .....
Trade Expenses .....
Insurance—Burglary .....
Unemployment Insurance—
Office .....
First Aid Supplies .....
Travelling Expenses .....

CLASS B.—Divisible on Basis of Horse Power Used.

Benzine for Cars and Trucks .....
Car and Truck Repairs .....
Unemployment Insurance—
Carter .....

CLASS C.—Divisible on Basis of Assets Employed.

CLASS D.—Divisible on Basis of Wages Paid.

CLASS E.—Divisible on Basis of Floor Area Occupied.

Office and Factory Cleaning .....

CLASS F.—Direct Debits.

Analysts' Fees .....
Legal Expenses .....
Loose Tools .....
Unemployment Insurance—
Factory Employees .....
Traveller .....
Draughtsman .....
Factory Supers. and Boys—D ....
Storemen—D .....
Tempering Oils .....
Car Allowance .....
Travelling Expenses—Special Traveller .....

CLASS G.—Divisible on Basis of Turnover of Section Only.

Unemployment Insurance—
Factory Supers, and Boys — A, B and C .....

Class H.—Divisible on Special Basis of Quantities Used.

Coal and Coke Fuel .....
Oil Fuel .....
Total of Group 1 .....

GROUP 2 — Expenses which we can NOT Control.

CLASS A.—Divisible on Basis of Turnover.

Exchanges .....
Insurances—
Bicycle and Third Party .....
Loss of Profits .....
Office Equipment .....
Stamp Duties .....
Government Department Fees .....

Class B.—Divisible on Basis of Horse Power Used.
Car and Truck Registration .....
Insurance—Motors and Vehicles ....
CLASS C.—Divisible on Basis of Assets Employed.
Insurance—
Buildings .....
Factory Fixtures .....
Machinery and Plant .....
Stock .....
Repairs and Maintenance—
Buildings .....
Machinery and Plant .....
Being Overhead, Wages and materials .....
Less Other Credits for—
Discounts .....
Rents .....
Interest Received .....
Unemployment Insurance—
Watchman .....
CLASS D.—Divisible on Basis of Wages Paid.
Insurance—
Highway Robbery .....
Workers' Compensation .....
CLASS E.—Divisible on Basis of Floor Area Occupied.
Rates .....
CLASS F.—Direct Debits.
Insurance—
Timber at Brey Street .....
Body Die and Development Costs ..
College Fees and Apprentices .....
Total of Group 2 .....
GROUP 3.—Expenses Dictated by Company's Policy.
CLASS A.—Divisible on Basis of Turnover.
Audit Fees .....
Bank Interest .....
CLASS F.—Direct Debits.
Rents of Additional Premises for Factory Purposes. .....
Rent of Stores .....
Total of Group 3 .....
GROUP 4.—Wages and Salaries Group of Overhead Charges.
CLASS A.—Divisible on Basis of Turnover of Whole Business.
Carters' Wages, including Holiday Pay .....
Watchman's and Janitor's Wages, including Holiday Pay .....
Office Salaries, including Holiday Pay .....
Directors' Fees .....
Salaries — Governing and Managing Directors .....
CLASS F.—Direct Debits.
Factory Supers. and Boys, including Holiday Pay—D .....
Traveller's Salary, including Holiday Pay—D .....
Draughtsman's Salary, including Holiday Pay .....
Storemen's Wages, including Holiday Pay .....
CLASS G.—Divisible on Basis of Turnover of Section Only.
Factory Supers. and Boys, including Holiday Pay—
A, B and C .....
Storemen, including Holiday Pay —A, B and C .....
Total of Wages and Salaries Group .....
GROUP 5.—Depreciation.
Depreciation on—
Buildings .....
Factory Fixtures, Fire Fighting Equipment .....
Machinery and Plant .....
Office Equipment .....
Motors and Vehicles .....
Patents .....
Furnaces .....
Total Depreciation .....
Total of Section A—
Gross Overhead .....
Less Overhead Charges Recovered from Departments in respect to Goods and Services of one Department for the benefit of the Sales of another Department .....
Net Overhead .....
SECTION B.
Direct Productive Wages .....

SECTION C.	Net Total Cost of Sales .....
Materials Used	Sales .....
TOTALS—SECTIONS A, B and C.	Net Profit on Operations .....
	Net Loss on Operations .....
Bad Depts Recovered	

The second group, that is, the expenses which we **cannot** control, contains a lot of items which continue as charges against a business regardless of whether or not the turnover is holding, is rising, or is falling. In this class we find the registration costs of cars and trucks, insurance of buildings, factory fixtures, plant or stock, expenses for the repair and maintenance of buildings and machinery, workers' Compensation, insurance, rates, and in our particular business, body die and development costs which have to be written off over a period.

The third group of expenses forming part of Section A contains those expenses which are dictated by the company's policy. Principle among these is bank interest, and I think you will agree that bank interest is, to a large extent, a matter of company policy as most companies have to decide at which point they will fix their capital and just how much they will supplement it by means of bank advances. You will notice that these are the main groups to which I refer.

Within each of these groups we have six classes of division which I outlined previously. In the group of expenses divisible between departments on the basis of the turnover of the whole business, we would normally find such charges as advertising, office stationery, postages and telegrams, telephone charges, unemployment insurance for office staff, first aid supplies and things of that sort.

In the class dealing with expenses divisible on the basis of horse power used, we get expenditure on benzine for cars and trucks and also cost of car and truck repairs and the unemployment insurance costs attaching to cartage services.

Class (c) covering expenses divisible on the basis of assets employed, naturally embraces normal and general insurance costs in respect to buildings, machinery and stocks. Costs of maintenance of buildings and machinery, unemployment insurance charges attaching to watchmen.

Class (d) which contains those expenses divisible on the basis of wages paid, would include workers' compensation and pay roll insurance, that is, insurance against highway robbery.

One of the most obvious items belonging to Class (e) expenses divisible on the basis of floor area occupied, would be the annual charges of rates, while Class (f), direct debits, includes items which can be definitely attributable to departments such as the expenditure in the replacing of loose tools, unemployment insurance contributions in respect of factory employees, travellers, draughtsmen, storemen, etc., and analyst's fees, in a case such as our own, where chemical processes are carried out, requiring constant and regular analytical services.

Classes (g) and (h) as previously mentioned, are peculiarities of our own accounting set up. Each of the principal groups of the first section of our statement is treated similarly so that expenses, whether they permit of close control or not or whether they are dictated by company policy are still divisible in such a way as to allocate a portion of each to each department.

The foregoing is only a broad survey of the classification of expenses in the general overhead group.

I would like you to spare a moment or two and just look at Exhibit (2) as I believe by looking at that, much more of the system will be understood than I can possibly hope to convey by addressing you. That, I think, explains the first section of the general overhead group of expenses.

In Sub-Section (B), we have the wages and salaries group of overhead charges. These are classified under the six headings in just the same way as before, according to the method by which we propose to allocate them to departments, and those divisible in Class (a) upon the basis of turnover of the whole business would include carter's wages and holiday pay, wages to watchmen and janitors or mess-room attendant, office salaries, directors' fees and salaries of governing and managing directors.

You will notice I have included directors' fees in this particular classification. According to my reasoning, as applied to our own particular business, this is the correct place for directors' fees to be charged. In other businesses of different types, there may be different classifications, but as previously stated, I am not endeavoring to set out the one and only class into which expenses can fall, but rather I am endeavoring to draw a general picture giving a fairly concise idea of the essential requirements.

Class (f) is that dealing with direct debits. This particular class, allocates directly against the department concerned, the salaries of factory supervisors and their assistants, of travellers, of draughtsmen and storemen, where these men are totally concerned with one or two departments only, and not the whole business.

It will be noticed that all the six (6) classifications are not needed in this section—expenses of all classes do not appear.

In our particular business we have two central stores, one serving the body division, the costs of which are allocated against that department entirely, and the other serving the electro-plating, engineering and spring departments, and the costs of the second store organization serving three departments are in our particular instance, divided over those three departments on the basis of the respective turnover of those departments only, which brings in the extra classification (g) which is peculiar to our business.

The third Sub-section in the general overhead section is depreciation. This, I think, is with advantage shown as a separate classification. There are many arguments for and against the charging of depreciation, and those arguments do not come within my province to-night, but as we are setting out to produce a statement which is going to show our managing director by the shortest means and with the fewest figures all the things he is likely to want to know regarding the results of the trading operations, I feel that it is essential that the subject of depreciation should be shown as a separate figure, so that he can clearly see the amount which is being recovered under this head from time to time regardless of whether or not he is of the opinion that depreciation does or does not take place.

Charges Recovered

Having come to the end of the general overhead group, I would like to draw particular attention to a little section which is a deduction and is referred to as overhead charges recovered from departments in respect to goods and services of one department for the benefit of the sales of another

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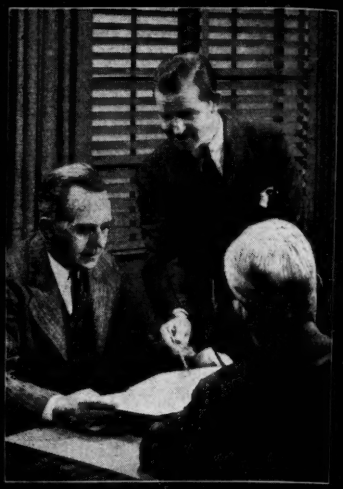

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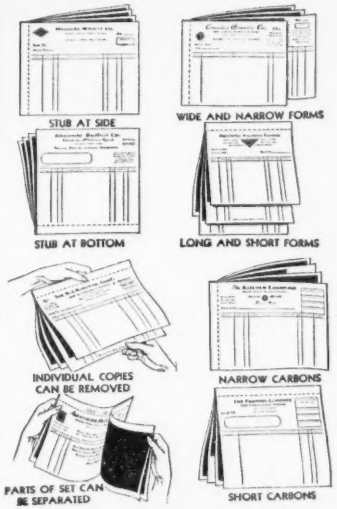

BUSINESS SYSTEMS LIMITED

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TORONTO - - ONTARIO

NOTICE TO MEMBERS

All members should report any change of address to the Secretary, at 600 MacKay Bldg., 66 King St. East, Hamilton, Ont. This will facilitate receipt of "Cost and Management" and will greatly assist Head Office.

This notice also applies to members who join the Forces.

department. This is a feature which is going to be met with in almost every manufacturing concern possessing more departments than one. In theory, we like to think that the sales can be so analyzed as to allocate to each department its proportion of the selling price of goods sold according to the proportion of the cost of production which that department had to carry. In practice, this theory may be possible, but personally, I have never been able to put it into practice, and in a business of the type we are now dealing with, I feel that the cost of doing so would far and away exceed the value of any useful results that may be obtained. Therefore, we must bring to bear a certain amount of ingenuity and endeavor to find a satisfactory solution because naturally this matter must be provided for properly.

We have a very close check on overhead being incurred, and I feel that where it is not possible to credit each department with a certain amount of the selling price of each item, particularly where the goods sold are a composite item produced by many departments, the only satisfactory method that I have been able to reach, as far as our own business is concerned, is to credit the full selling price against the department mainly concerned and arrange for the withdrawal of all the cost debits in respect to that product from all the other departments concerned and charge those items to the department getting the credit for the sale. Thus, in the case of a motor body, presuming it to cost £60, which amount is made up of certain body department costs, certain engineering ironwork and certain electroplating, the only solution which I have found to be practicable is to withdraw from the engineering and electroplating departments, the amount of cost incurred by each, and charge that to the body building department. This means certain credits against wages, certain credits against material, and certain credit against overhead. Now, it will be seen that this credit against overhead consists of a proportion of a charge which charge itself is the aggregate of a great number of small items. Thus, we could not hope to credit back a fraction of the overhead recovered against advertising and another fraction against tools and another fraction against the traveller's salary, and perhaps another fraction against postages and telegrams, so the only alternative is to credit the department with the total overhead recovered as one figure and that is the explanation of this particular item.

This procedure may not suit every business, and it is a common practice to treat work by one department for another as sales. In other cases, endeavor is made to apportion selling price between departments in the ratio which the costs of each department bear to each other, which is a very correct method if it can be done with reasonable accuracy, at a reasonable cost. Each business, however, selects the method which it finds most suitable to its own conditions and the governing factors must always be the accuracy with which information can be secured, the cost involved in securing it and—of paramount importance—its value and general utility when secured.

You will thus see, by referring to our statement, that we have a long classified list of expenses incurred and then, when we arrive at a gross total we take off the amount recovered by one department from another and thus we arrive at the net overhead chargeable against each department.

That, I think, satisfactorily accounts for the first element of cost—namely overhead—so far as we need deal with it at this point, but you will observe that the orthodox trading and profit and loss account has quite

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The Secretary,
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disappeared, and in its place we have set up a structure just bristling with possibilities of useful application, such as the trading and profit and loss account in their orthodox form never held. And what is so very valuable about this method of presentation is that it does not call for any special effort to produce and can be presented with no more trouble than the ordinary trading and profit and loss account. However, we have not nearly finished with this part yet, but we must leave it for a moment and push on to the point where it will be brought into useful application in conjunction with the remainder of the scheme.

If I were Asked to Plan a Factory Accounting System

By W. BERTRAND ASHBY, A.F.I.A.

Reprinted from "THE FEDERAL ACCOUNTANT"

To any young commercial accountant of to-day may come the command to instal a set of accounts by which the factory can record its dealings with materials and money in such a way as will enable some close check-up with the manufacturing accounts of the office department.

Such a difficult task is somewhat beyond the scope of our ordinary text books and belongs rather to the administrative side of cost accountancy. Can it be handled without hesitation and with efficiency? I think that it can if we take certain points into consideration.

The first such point is, I think, that the factory looks on its financial records from quite a different point of view than does the commercial accountant.

The latter is endeavoring to arrive at a trading or a manufacturing and trading account, followed by the profit and loss account in due course and the balance sheet thereafter. For this reason, his accounts are only as detailed as they have to be.

The factory accountant is aiming at such a fine scaling down of expenses that he can tell to a fraction of a penny where each pound has been used in his factories. This viewpoint is the deciding factor in his plans.

Next, there is a radical difference between the charging out of materials and wages, and overhead items found in the factory, expense accounts in your usual ledgers must be charged out to various operations at the factory.

Then, too, factory accounting looks ahead in various ways and sometimes anticipates certain-to-occur losses. In ordinary bookkeeping we often wait till the end of a period before making adjustments.

Furthermore, quite a number of forms must be devised in order to enable the accurate charging out of direct operating expense, all of which is quite foreign to your existing conceptions.

The first thing I would do in creating my factory system would be to transfer, through a control account on the self-balancing principle, all ordinary expense accounts. Whether capital factory assets would be transferred, too, would be governed by circumstances. If it seemed good to do so, I should have no hesitation in transferring them. If the office proposed to retain within its grasp the handling of cash and the payment of

creditors, the charging of accounts for goods delivered from factory, then capital assets would not be transferred.

All stores in control of the factory would be transferred and so, in an orderly manner, a factory account would be created consisting of debits for every expense item handed to the new ledger-keeper there, who would get a debit note therefor.

This would form the basis of my first journal entry. If any petty cash were advanced, this would be charged to factory account.

First Step: Create a factory account in the existing ledger, by journal entry, debiting it with any assets transferred and with the total of any expense accounts transferred.

Note: Where possible, details of the plan should be ready for the transfer at the end of a financial period so that the new system can operate from the first day of the new period. This saves much complication.

By another journal entry, this time in the new factory books, debit items transferred and credit general ledger account.

Specimen Journal Entry:

Factory Account Dr.
To Raw Materials A/c. Cr.
Transfer of listed stores to factory department.
To Loose Tools Account Cr.
Transfer of listed tools to factory.
To factory plant account Cr.
Transfer of Plant A/cs.
Ect., etc., until all accounts have been written out.
Entry in the factory journal will be opposite to the above, credit being to general ledger A/c.

Second Step: Provide for operating accounts to cover the existing process at the works. In this, you must confer with the works administration, producing a definite chart showing each different process and where it stops.

The object is to divide up the process into individual parts, each being a unit separate from all others.

Third Step: Give each main division a symbol, such as an initial letter, to indicate a main division, e.g., letter "A", followed by a stroke, will be used for all charges to first process department, divisions of that department's process being numbered on a convenient basis, e.g., "1" indicates a main section of the floor. "A/1" will prefix all items for that portion of the floor. This symbolization will be carried on, further signs denoting further sub-stages of the process until every section marked on the chart has its number.

Do not omit to provide for service sections like maintenance, transportation, etc. In this manner, you have a means of ensuring that all expense will be taken to a definite and intended account. This is better than using names of sections, these being often confused by various workmen.

Fourth Step: Duplicate the chart, with numbers of sections shown clearly, and allow one copy for every main foreman who has power to requisition, for every store-keeper in the works, for every main executive, and for the timekeeper. The factory office staff will have access to a chart, these charts all being framed for wall display if possible.

Fifth Step: Create a factory ledger, sectionizing it as desirable, to show

divisions of expense in one part and capital items in another. (These sections can be in different ledgers if desired, provided that each is self-balancing with the main ledger).

Accounts will go by numbers, these being the numbers on the chart and capital account will be in a separate section.

(It is useless to try and lay down any inflexible system here. You must use commonsense and imagination.)

Sixth Step: Create forms for daily use. The following are essential:

1. Requisition for materials;
2. Wages allocation (weekly);
3. Invoices for store use in advising office of issues;
4. Time cards to show essential data;
5. Service department reports;
6. Daily output charts.

Other forms as indicated by requirements, the object being a daily accounting for all major expense.

Whether any further forms are required is a matter to be dealt with in each case. Assuming that you have provided for a good start, day to day experience will enable you to devise to meet requirements. Care in this is essential for some few months.

Seventh Step: Construct the cost statements. This must be done in collaboration with the works engineers and technicians. You can rely on much help here if you are willing to listen to these experts. They are as much concerned as you are, and they are not at all ignorant of requirements. They can help more than you think and they probably hold considerable information already in their files.

ATTENTION!

From time to time we receive requests from our Western Chapters to have Eastern members who may be visiting the West, call on our Chapters there. Any member who can address the Chapters and is willing to do so will be doubly welcomed, but members who merely wish to pay a courtesy call will receive a royal welcome. Remember the fellows out West are far away from Headquarters, and a visit on your part when in the vicinity will do a lot to help them.

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